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FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,585

Applicant(s)

SATO, YASUTAKA

Examiner

Kevin Schubert

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-34 have been considered.

Continued Examination Under 37 CFR 1.114

5 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/1/05 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

15 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20 Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, it is unclear whether the phrase "within a specified range and in a specified calculation pattern" modifies applicant's claimed "items of digital data" or "adds predetermined calculation values...". Similar language is present in each of the independent claims. For examination purposes, Examiner assumes the phrase "within a specified range and in a specified calculation pattern" modifies "adds predetermined calculation values". Appropriate correction is required.

Claim Rejections - 35 USC § 102

25 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5

Claims 1-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Karppanen, U.S. Patent No. 5,987,137.

As per claims 1,7,13,17, and 26 the applicant describes a data protection processing device
10 which comprises the following limitations which are met by Karppanen:
a) a determination unit which reads continuous digital data in sequence and determines whether or not the read digital data forms numerical values having a predetermined pattern (Col 9, lines 53-62);
b) a calculation unit which adds predetermined calculation values to or subtracts predetermined calculation values from either all of or a portion of a predetermined number of items of digital data within a
15 specified range and in a specified calculation pattern that follow after digital data that is determined as a result of the determination by the determination unit to form numerical values having the predetermined pattern (Col 7, lines 16-19);

As per claims 2,5,8,11,15,18,21,24,27,30, and 33, the applicant describes the data protection
20 processing device of claims 1,4,7,10,13,17,20,23,26,29, and 32, which are anticipated by Karppanen (see above), with the following additional limitation:

Wherein the calculation unit sequentially adds or subtracts calculation values of predetermined data patterns or byte patterns to or from digital data or data of a byte unit that is the object of the addition or subtraction (Col 7, lines 16-19).

25

As per claims 3,6,9,12,16,19,22,25,28,31, and 34, the applicant describes the data protection processing device according to claim 1, which is anticipated by Karppanen (see above), with the following additional limitations which are also anticipated by Karppanen:

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a) a memory which stores information relating to predetermined numerical values or predetermined byte code, information relating to the predetermined number of items, and information relating to the predetermined calculation values (Col 9, lines 53-62; Col 9, lines 20-25);

5 b) an information altering unit which alters at least one from among the information relating to the predetermined numerical values or the predetermined byte code, the information relating to the predetermined number of items, and the information relating to the predetermined calculation values that are stored in the memory (Fig 4b; Col 9, lines 11-19);

10 As per claims 4 and 20, the applicant describes the limitations of claim 1, which is met by Karppanen (see above), and the following additional limitations which are also met by Karppanen:

a) a holding unit which temporarily holds binary data input serially as byte data of a byte unit (bitwise binary addition block of Fig 4b);

d) an output unit which serially outputs data of a byte unit calculated by the calculation unit into as data of a bit unit (bitwise binary addition block of Fig 4b).

15 As per claim 10, the applicant describes a modem device with the limitations of claim 7, which are anticipated by Karppanen (see above), and the following additional limitations which are also anticipated by Karppanen:

20 a) a data compression unit which performs data compression processing on a digital data to be transmitted based on a normalized data compression standard (Col 3, lines 1-6);

f) a data decompression unit which converts byte data subtracted or added in the second calculation unit into digital data and performs data decompression processing on the converted digital data based on the data decompression standard (Col 3, lines 1-6).

25 As per claim 14, the applicant describes the data communication system according to claim 13, which is met by Karppanen (see above), with the following additional limitation which is also met by Karppanen:

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Wherein the data transmitting device and data receiving device are connected to each other via a network such as the Internet (Col 3, lines 15-21).

As per claim 23, the applicant describes the limitations of claim 4, which is met by Karppanen
5 (see above), with the following additional limitations which are also met by Karppanen:

b) a data extraction processing step of extracting a portion of the byte data forming the
predetermined data frames held in the holding step to serve as data for processing (Col 6, lines 25-27);

e) a data frame reconstruction processing step of reconstructing the predetermined data frames
using byte data calculated in the calculation processing step (Col 5, lines 14-17; Col 2, lines 8-11).

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As per claim 29, the claim includes limitations a) through d) which are met by the rejection for
claim 4. Having a parallel receiving unit which has limitations e) through h) is met by the rejection for
claim 7.

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As per claim 32, the claim includes limitations a) through f) which are met by the rejection for
claim 23. Having a parallel receiving unit which has limitations g) through l) is met by the rejection for
claim 7.

Response to Arguments

20

Applicant's arguments filed 12/1/05 with respect to the 102(b) rejection of claims 1-34 under
Karppanen have been fully considered but they are not persuasive. Applicant presents the following
argument:

(a) Karppanen does not disclose "a calculation unit which adds predetermined calculation values
to or subtracts predetermined calculation values from either all of or a portion of a predetermined number
25 of items of digital data **within a specified range and in a specified calculation pattern**"

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Examiner respectfully disagrees with such an assertion, especially in light of the following.

Karppanen discloses a data protection processing device which transmits encrypted data. The transmitted data is ciphered in such a way that to each bit of the data frame, a corresponding bit of a ciphering bit string is summed (Col 6, lines 25-27). As illustrated in Fig 4a of Karppanen, "plain text data" is encrypted through a summing process with "BLOCK1" (for example a bit string such as "10011100"). Ciphering can be executed by dividing the transmitted data preferably into sub-blocks of standard length, which may be byte-divisible. In particular, the first bit of each sub-block is ciphered by the first bit of the ciphering algorithm, the second bit of the sub-block by the second bit of the ciphering algorithm, etc. (Col 6, lines 47-59). Further, an encryption bit may be added to a data frame to indicate whether the data frame concerned is ciphered or non-ciphered (Col 10, lines 15-21). After encryption, data is transmitted and a similar process occurs on the receiving end (Fig 4a).

Thus, as is quite clear from the above, Karppanen discloses a calculation unit which adds predetermined calculation values to or subtracts predetermined calculation values from either all or a portion of a predetermined number of items of digital data within a specified range and in a specified calculation pattern. Accordingly, the rejection has been maintained.

Conclusion

This action has been made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should
5 you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KS

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EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER